

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/008657

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F02M27/02 F02M31/08 F01N5/02 F02G5/02 B01D19/00
C10G7/00 C10G31/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F02M F01N F02G B01D C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 441 401 A (TOYOTA MOTOR CO LTD) 14 August 1991 (1991-08-14) abstract column 7, line 2 - column 8, line 41; figure 9	1,2,5,6, 13 12,14
X	US 4 606 319 A (SILVA) 19 August 1986 (1986-08-19) the whole document	1,2,5-10
A	US 5 327 875 A (HALL) 12 July 1994 (1994-07-12) the whole document	1,2,5-8, 13
A	GB 2 295 561 A (LUCAS IND PLC) 5 June 1996 (1996-06-05) the whole document	1,2,5, 12,14
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

17 September 2004

Date of mailing of the international search report

24/09/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 0122, no. 92 (M-729), 10 August 1988 (1988-08-10) & JP 63 068714 A (MAZDA MOTOR CORP), 28 March 1988 (1988-03-28) abstract</p> <p>-----</p>	1,2

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			JP 4214918 A	05-08-1992
			DE 69109315 D1	08-06-1995
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US 4606319	A	19-08-1986	NONE	
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US 5327875	A	12-07-1994	NONE	
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GB 2295561	A	05-06-1996	NONE	
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JP 63068714	A	28-03-1988	NONE	
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